

ABSTRACT

A programmable controller includes at least one user input interface, and an input register,
at least one user output interface and an output register, programmable logic hardware and
5 program loading means.

The user input interface and input register is for connection to process plant and/or machinery
to provide sampled and stored input data in digital form. The user output interface and output
register is for connection to process plant and/or machinery and receives and stores output data
in digital form. The programmable logic hardware includes a plurality of basic logic elements
10 and electrically configurable interconnections. The interconnections are configurable to
interconnect the logic elements as a user control program circuit and to connect the user control
program circuit to the input and output interfaces. The program loading means to enables the
user to configure the programmable logic hardware as a circuit implementing a user control
program prior to initiating control of the associated process plant and/or machinery.

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